

1     **ABSTRACT**

2             The adaptive bandwidth throttling system implements a graceful diminution  
3 of services to the clients by delaying a first class of services provided by a network  
4 server in response to the effective bandwidth utilized by this network server  
5 exceeding a first threshold. If the demand for the bandwidth by this network  
6 server exceeds a second threshold, the bandwidth throttling system escalates the  
7 throttling response and blocks the first class of services from execution and can  
8 also concurrently delay execution of a second class of services. The  
9 implementation of the throttling process can be varied, to include additional levels  
10 of response or finer gradations of the response, to include subsets of a class of  
11 services. In addition, the threshold levels of bandwidth used to trigger the  
12 throttling response can be selected as desired by the system administrator.  
13 Typically, once the effective bandwidth utilization is approximately equal to the  
14 allocated bandwidth for the network server, the first level of the hierarchical  
15 bandwidth throttling is activated. The second level of the hierarchical bandwidth  
16 throttling is activated once the effective bandwidth utilization exceeds the  
17 allocated bandwidth for the network server by greater than a predetermined  
18 amount.

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